

The changing epidemiological situation of *Echinococcus multilocularis* in red foxes in Poland

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Prevalence study carried out recently in Poland (2009–2013) showed non homogeneous distribution of *Echinococcus multilocularis* infection in red foxes. Moreover, the significant rise of this infection in foxes in some regions in comparison to results obtained 20 years ago was observed. This indicates the dynamic changes in the epidemiology of *E. multilocularis* in foxes.

The aim of the presented investigation is estimation of changes in prevalence of this parasite in selected areas of Poland in following years. Basing on the results obtained in earlier surveillance two regions were selected. Region-A with low prevalence (south-west Poland) and region-B with high prevalence (south-east). Foxes were shot in two autumn/winter seasons: 2013/2014 and 2014/2015. Overall, 709 foxes were examined (377 – region-A and 332 – region-B). Intestines were examined with the use of the sedimentation and counting technique.

Moreover, results from the same areas obtained some years ago were used for comparisons. In region-A 5.9% of infected foxes was found in 2013/2014 (and it was on the similar level than in previous years) but in 2014/2015 prevalence significantly increased to 13.8%. In region-B in 2013/2014 prevalence was 54.6% (similarly like in previous years) but it significantly decreased in next season (2014/2015) – 32.2%. First years of our project showed that level of *E. multilocularis* infection in selected Polish regions (with high and low prevalence) are not stable. Especially important is the significant increase in the region with low prevalence. This indicates on the necessity of monitoring during next years to control the progress.